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Manuscript Number: THELANCET-D-08-06659R3

Title: ONGOING VIOLENCE, SUFFERING AND MENTAL HEALTH: A SCHOOL-BASED SURVEY
IN AFGHANISTAN

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Abstract: Background: Previous surveys in Afghanistan have documented significant mental health problems among adults. We conducted the first-ever survey of 11-16 year olds.

Methods: In 2006, we interviewed a cluster sample of 1011 children, their caregivers and teachers, randomly sampled in 25 government-operated schools within three purposively chosen areas. For students, we administered the Strength and Difficulties Questionnaire (SDQ) to predict likely psychiatric disorder from multi-informant ratings; the Depression Self-Rating Scale; and an Impact of Events Scale. For caregivers, we used both international and culturally-specific screening instruments (Self-Reported Questionnaire; Afghan Symptom Checklist). We implemented a Checklist of Traumatic Events to examine the exposure to and nature of traumatic experiences.

Findings: Two risk factors, trauma exposure and caregiver mental health, were present across all child outcomes. SDQ ratings were associated with female gender (OR=2.47[1.65,3.68]), 5+ traumatic events (OR=2.58[1.36,4.90]), caregiver mental health (OR=1.11[1.08,1.14]), and residence areas (OR=0.29[0.17,0.51] and OR=0.37[0.23,0.57] vs. Kabul as reference). The same

variables predicted depressive symptoms. Two-thirds of children reported traumatic experiences. Symptoms of post-traumatic stress were associated with 5+ events (OR=3.07[1.78,5.30]), caregiver mental health (OR=1.06[1.02,26.6]) and child age (OR=1.19[1.04,1.36]). Children's most distressing trauma included accidents, medical treatment, domestic and community-level violence, as well as war-related events.

Interpretation: Young Afghans experience ongoing exposure to violence, which is not narrowly confined to war-related events. The study highlights the potential value of school-based initiatives to address child mental health, and the importance of understanding trauma in the context of 'everyday' forms of suffering, violence and adversity.

R3: RESPONSE to referee comments and R3 word count

Thank you for the opportunity to revise and re-submit our paper to the Lancet. We have responded to all the comments from Reviewer #9 as detailed below.

R3 word count: 5,351 (text) and 244 (abstract). Signed permissions provided with R2.

1. Overview

Reviewer #9: “This is a well planned and accomplished study addressing an issue of major importance - what happens to mental health in youth who grow up in a war zone. The results of the study go beyond the obvious fact that war is bad for children, and the authors describe thoroughly and well organized the terrible facts of health consequences. They also demonstrate very clearly how violence spreads from war itself to more indirect expressions, increasing the burden for those who are close to the war zones. Yet, the article also contain certain aspects on resilience and hope, although not pursuing these in depth. I understand that the original manuscript covered a mixed-methods approach, upon which the previous reviewers have given the advice to prioritize the quantitative data in this article. Presentation of mixed-method designs is usually quite challenging, and clarity of presentation is not always enhanced when such ambitions are high. I therefore endorse the advice already given, and have concentrated on the task of reviewing the few remaining traces of the qualitative approach.”

Authors’ response: Thank you for this positive opinion of our work and support for the modifications made to the paper in light of a previous review, regarding prioritising of epidemiological data.

2. Presentation of the qualitative data

Reviewer #9: “At p 8 (last paragraph before Findings) content analysis of verbatim descriptions is presented as a way of subtyping participants' most distressing lifetime event. The frequencies have been quantified and presented in Figure 4. At p 10, examples of such specifications are listed and partly quantified as percentages before and after Taliban. At page 12, these examples are used to extend the discussion about the conceptual understanding of trauma. I would strongly warn against quantification and percentages of open-ended, non-standardized expressions, since we would never know how many would have checked this or that alternative if they had been asked. I would therefore suggest all percentages to be removed from Figure 4 and p 10, as they are misleading regarding the distribution of the different trauma aspects. However, presented as textual examples, they function very well to provide nuances to the crude categories. This way of presenting should therefore be maintained.”

Authors’ response: We have followed the referee’s recommendations and removed from Figure 4 and p.10 the percentages which refer to sub-types of traumatic events. The percentages reported in the text and figures are now confined to strictly quantitative data collected using the 21-item (yes/no response) Traumatic Events Checklist.

We agree with the referee that the paper delivers its message without inclusion of percentage figures for sub-types of trauma, namely that children assign significance to ‘everyday’ violence as well as ‘militarized’ violence in the recollection of traumatic experiences.

Specific changes made to the text are detailed in bold:

a) P.8: Content analysis.... **These sub-types are shown in Figure 4 for three of six main categories, in order to illustrate the range of events reported.** Thematic analysis of respondent narratives will be published elsewhere.

b) P.10: Children’s most distressing lifetime trauma... **In the first category (injury), children reported serious accidents, severe beatings by relatives or neighbours, frightening medical treatments, and painful illnesses without medical care; only 4 respondents mentioned war-related events such as landmine injury.** The second category (witnessing violence) included war-related events (summary executions/beatings during Taliban rule, deaths from rocket explosions, mutilated/dead bodies), but also community-level and domestic violence. The deaths/losses of close relatives reported in the third category were primarily related to war, but also included accidents and criminal acts. **The lifetime events reported as most distressing included both past and ongoing exposure to violence, during the Taliban period and after the fall of their regime (2001).** Remarkably, many children escaped the burden of traumatic experiences, either reporting no exposure at all (36.5%) or exhibiting little psychological *sequelae* (CRIES scores) to adverse life events.

c) Figure 4: **Removed all percentages referring to sub-types of trauma.**

3. Discussion of rape of sexual abuse

“Finally, I wonder why there is no explicit questions or discussions on rape or sexual abuse, since the gender proportion here is so strong, and since we know that rape is a terrible side-effect of war.”

Authors’ response: Rape and sexual abuse of children are important subjects in their own right, which we feel we cannot adequately address within the scope of this paper. We have not made changes to the ms on this point for the following reasons:

We did not *explicitly* collect data on rape or sexual abuse, as this would have been inappropriate in the context of school-based survey of 11-16 year olds in Afghanistan. We did include items on our Traumatic Events Checklist for exposure to ‘severe beating’ and ‘severe injury’, as well as a category for ‘any other event.’ Within these categories, children did not report any instances of rape or sexual abuse, but did report experiencing or witnessing domestic beatings and other forms of violence.

Our Traumatic Events Checklist was adapted from the Harvard Trauma Questionnaire (HQT) and the Gaza Traumatic Event Checklist (Gaza TEC). A specific question on rape is featured in the HQT and was implemented in two household surveys of adult mental health in Afghanistan. It is not, however, featured in the Gaza TEC - for 7-12 year old children.

Our Afghan partners strongly advised against including specific questions on rape and sexual abuse on the Trauma Events Checklist we implemented. Testimony of rape or sexual abuse has severe legal implications in Afghanistan, and dramatic repercussions on individual and family “honour.” Our partners believed that a direct evocation of these topics during interviews with children would have compromised the survey.

In light of the reviewer’s query, we re-examined literature on rape or sexual abuse in Afghanistan. Several Human Rights Watch reports draw attention to anecdotal evidence of the rape and sexual assault of women, girls and boys by *mujahidin* groups and the Taliban in Afghanistan. They also underline the numerous obstacles to systematically documenting and verifying such violations. This a complex subject to investigate in the Afghan context, where definitions of rape and sexual violence are contested and for which there are no reliable data on the prevalence of such abuse for children.

ONGOING VIOLENCE, SUFFERING AND MENTAL HEALTH: A SCHOOL-BASED SURVEY IN AFGHANISTAN

Background: Previous surveys in Afghanistan have documented significant mental health problems among adults. We conducted the first-ever survey of 11-16 year olds.

Methods: In 2006, we interviewed a cluster sample of 1011 children, their caregivers and teachers, randomly sampled in 25 government-operated schools within three purposively chosen areas. For students, we administered the Strength and Difficulties Questionnaire (SDQ) to predict likely psychiatric disorder from multi-informant ratings; the Depression Self-Rating Scale; and an Impact of Events Scale. For caregivers, we used both international and culturally-specific screening instruments (Self-Reported Questionnaire; Afghan Symptom Checklist). We implemented a Checklist of Traumatic Events to examine the exposure to and nature of traumatic experiences.

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Interpretation: Young Afghans experience ongoing exposure to violence, which is not narrowly confined to war-related events. The study highlights the potential value of school-based initiatives to address child mental health, and the importance of understanding trauma in the context of 'everyday' forms of suffering, violence and adversity.

Word count (text only): 5,359

INTRODUCTION

Child and adolescent mental health sits high on the international public health agenda.¹ According to researchers working in conflict zones, however, there is still “a serious dearth of systematic empirical information” on war-affected and displaced youth.^{2,3} The literature shows an overwhelming focus on identifying traumatic stress and other negative sequelae of war, to a point where calls have been made to identify factors underlying vulnerability and resilience to social and economic upheaval in the wake of war,^{4,5} rather than just confirm the obvious - that “war is bad for children.”⁶ Current research and policy initiatives in conflict and disaster settings also seek to broaden the evidence base, through examining a fuller range of psycho-social dimensions of mental health.⁷⁻⁹ The literature highlights crucial gaps in research, policy and practice regarding war-affected children¹⁰ and demands rigorous research to inform a broader understanding of psychosocial wellbeing and mental health. In this context, a child-focused assessment of trauma, suffering and social functioning is vital.

Afghanistan has endured a combination of armed conflict, widespread poverty and social injustice. State education and healthcare systems have been severely crippled, as were community networks of social support.^{11,12} Previous large-scale surveys have documented a broad spectrum of mental health problems in the adult population, including depression, anxiety and post-traumatic stress, associated with gender and exposure to traumatic events.^{13,14} No systematic survey has yet focused on young people, although an unpublished UNICEF study in 1997 reported that 90% of 300 children interviewed in Kabul believed they would die in the war, while 80% said they were sad, frightened, and unable to cope with life.¹⁵ Conversely, a qualitative study led by Save The Children (2003), involving 437 children and adult carers in Kabul, sought to dispel the notion that the majority of young Afghans were “traumatized by their experiences of conflict.”¹⁶

We conducted the first large-scale survey of child mental health, in three areas of Afghanistan. In order to assess mental health and life adversity from multiple viewpoints, we featured interviews with children, caregivers and teachers; for this reason, we situated the study in schools. The education sector has significantly expanded since the fall of the Taliban (2001) and the “Back to School” campaign beginning in 2002: a large number of government-sponsored schools have opened, ranging from *lycée* to Islamic *madrassa*, catering for girls as well as boys in primary and secondary-level education. While full census data exist only for 1979, national surveys reported that 64% of 7-14 year-olds (girls, 48%; boys, 77%) attended school in 2004-05;¹⁷ school attendance is rapidly growing in central and northern

Afghanistan, given a relatively stable governance after a long period of civil war. Particularly in Kabul, educational institutions hardly cope with the influx of students: most teach two shifts per day and many hold classes in outdoor tents as well as classrooms. We found schools to be the best point of contact for drawing a community-level sample because they provided an appropriate context for research activities, ensured the safety of the field team, and enabled the delivery of a complex field protocol. We could not overcome formidable barriers (affecting rapport and interview privacy) to a systematic sampling of out-of-school children. We targeted 11-16 year-olds, to allow respondents to articulate for themselves views about adversity, health and social functioning. Our baseline study thus speaks to the needs of children able to attend school and old enough to evaluate their experiences.

An integrative approach has been advocated in the Lancet to bridge medical and social understandings of trauma, post-traumatic stress and psychological impairment in the wake of war.¹⁸ In line with this approach, we provide an epidemiological profile of child mental health and an analysis of events reported as trauma. With screening instruments, we examined the nature of mental health problems, testing specific associations with gender, traumatic events, caregiver mental health, and socio-demographic characteristics. From respondent accounts collected during implementation of a checklist, we examined the exposure to and nature of trauma events.

METHODS

Study Design

In 2006 (May-December), we conducted a two-stage, school-based cross-sectional survey, interviewing 11-16 year-old students, their primary caregivers, and classroom teachers (Figure 1). To capture a range of historical, social and economic experiences, we purposively selected three research sites (Kabul, Bamyan and Mazar-e-Sharif municipalities) in central/northern Afghanistan, excluding for security reasons areas in the south/southeast. We built upon extensive experience: surveys in Wardak province (2004) where schools could not be randomly selected, and in Afghan refugee camps of Pakistan (2005) where the protocol was successful, allowing us to perfect rapport-building strategies and test instrument reliability.

[Figure 1]

We adopted a stratified random sampling design. Because school records were not centrally available, exhaustive lists of all state-operated schools (n=257 in the 3 areas), with size of student population, had to be obtained from local administrative offices. In stage 1,

we drew a random sample of 25 schools (10% of those listed), with probability sampling proportional to size, and additional stratification in Kabul across its 16 educational zones to achieve spread across city areas. To provide balanced geographical and gender coverage, we selected 8-9 schools per research site, with equal numbers of boy/girl schools (we drew a total of 14 single-sex schools and 11 co-educational schools). For each participating school, we enlisted teachers to compile up-to-date, age-specific class lists for grades 5-10, which cater for 11-16 year olds - due to curtailed education under the Taliban, a single grade includes a wide age-range of students. In stage 2, we drew a random sample of students, selecting a minimum of 40 participants from each school (20 boys/20 girls from co-educational schools, which hold separate am/pm shifts for boys/girls). Our sample (n=1,011) represented 5% of all students in target grades.

We aimed for 290 participants per area, given power calculations based on pilot work using identical instruments with 11-16 year-old Afghan school-children, caregivers and teachers ($\alpha=.05$, 95% CI, two-sided test to detect a 5% difference in prevalence rates for primary outcomes). Our target sample was 15% above this number. Rapport was developed by initiating school-based activities prior to survey, offering small, locally-appropriate gifts to respondents (e.g. refreshment/notebook) and schools (e.g. heater/water cooler) and health checks on nutritional status and blood pressure (but not medical care) as gestures of goodwill. All selected students agreed to participate: they were eager to be interviewed because of the novelty of our research activity. Caregivers (adults with direct responsibility for the child) were recruited through the students - they included male/female parents or other relatives, reflecting the strict gender segregation of daily life and the role of extended families in childcare. To realize 40 multi-informant interviews per school within a 10 day-period/school, we contacted 1,260 students, met with 1,021 caregivers (81%), and interviewed 1,020 within the allocated time; only one father refused to participate. If a caregiver did not come to the school, we could not obtain informed consent, and therefore did not interview the child. Teachers repeatedly asked us why *all* students could not be included; as a matter of courtesy, we did interview (but excluded from the dataset) a handful of keen volunteers, unselected by random procedures.

A small team of well-trained researchers moved sequentially from school to school - this maximized data quality/comparability and rapport/participation. Suitable interviewers were recruited from a pool of previously experienced researchers, and given three weeks' field training by the senior academics and project manager. Training included interview techniques sensitive to gender, ethnicity and age differentials, as well as measuring health

status; blood pressure measurements helped establish rapport with participants, as high/low blood pressure is a local idiom for being agitated/depressed. Three male and three female staff (fluent in Dari/Pashto) were contracted for 8 months, to interview students, caregivers and teachers – in face-to-face, private encounters, on school premises. One professional translator handled all verbatim data. An Afghan medical doctor helped with health checks/referrals. Two Afghan clinical psychologists were involved in piloting and review of instruments, but could not be retained for the duration of survey. The project manager, fluent in English and local languages, liaised with schools, explained the research to participants, checked completed questionnaires daily and verified translations of verbatim data. Other authors were on-site during staff training, instrument pre-testing and review, data collection, translation and evaluation. Protocol was approved by Durham University, the Ministry of Education in Kabul, its subsidiary departments in Kabul, Bamyán and Mazar-e-Sharif, and all school directors; informed consent was obtained from parents/guardians first, then from children and class teachers, in verbal form.

Instruments

We used multiple screening tools for child/adult mental health (Figure 2). Instruments were chosen on the basis of simplicity, reliability, good psychometric properties for the target age-group¹⁹ and extensive usage as research tools in schools and low-income/conflict/disaster settings (e.g., in Gaza, Bosnia, Bangladesh and Pakistan; Table for online publication). Where no clinical revalidation has been possible, such tools effectively screen for *likely* child/adolescent mental health disorders and/or distress symptomology. An Afghan clinical psychologist, with professional experience in Afghanistan and Britain, translated instruments from English to Dari and Pashto. Independently of each other, one professional translator and one linguist undertook blind back-translations. Both sets of translations and back-translations were systematically reviewed for content validity, by an Afghan group of bi/trilingual fieldworkers/academic staff with expertise in social work, anthropology and clinical psychology, then vetted by Western experts in psychology/psychiatry. Three extensive pilots, including measurement (test-retest) reliability, were conducted in a range of Afghan communities (Wardak, Peshawar, Kabul). These steps conform to procedures advocated for instruments used in transcultural research.²⁰

[Figure 2] [Table for online publication]

The Strength and Difficulties Questionnaire (SDQ) was implemented with students, primary caregivers and main classroom teachers, to identify children for whom a psychiatric disorder is ‘unlikely’, ‘possible’, or ‘probable.’ The SDQ is a simple and effective screening

tool providing balanced coverage of behavioural, emotional and social problems,^{21,22} which can be self-completed by children aged 11+. Its four sub-scales - emotional, behavioural, hyperactive and peer problems, reflecting ICD-10 and DSM-IV criteria - yield a total score for mental health “difficulties;” a fifth sub-scale taps “strengths” or prosocial behaviour; supplementary questions measure the impact of a child’s difficulties (rated by multiple respondents) for home, classroom, social, and leisure activities. Notably, the SDQ predicts psychiatric disorder on the basis of both *symptoms* and *impact* on social functioning and can triangulate ratings across informants, which better predicts mental health disorders than information from just one source.^{23,24} Single-informant SDQ ratings have been used and validated in Bangladesh,²⁵ Pakistan,^{26,27} the Yemen²⁸ and Gaza.²⁹ A multi-informant categorization of children³⁰ is generated by a computerized algorithm predicting that probable disorders are present where symptom scores exceed 95th centiles and impact scores are definite or severe (<http://www.sdqscore.net>). It has been validated in Britain and Bangladesh,^{25,30} and shown to work equally well in both settings. We developed SDQ versions in Dari and Pashto (now copyrighted, see www.sdqinfo.com).

Two other instruments were administered to students. The Birmaher Depression Self-Rating Scale (DSRS) is a brief screening tool (18 items, 3-point scale) for child depressive symptoms,³¹ which discriminates effectively between severely and non-severely depressed children, although various cut-off points are used in the literature. The Child Revised Impact of Events Scale (CRIES-13 items, 4-point scale) measures the impact of traumatic experiences; scores of 17+ for combined intrusion/ avoidance symptoms indicate a level of distress consistent with post-traumatic stress (i.e. PTSD-like symptoms).³² We developed DSRS and CRIES versions in Dari and Pashto for the Children and War Foundation (www.childrenandwar.org).

For caregiver mental health, we used two instruments validated for Afghanistan.³³⁻³⁵ The Self-Reported Questionnaire (SRQ-20 items, yes/no responses) is an international instrument recommended for epidemiological research in low-income countries.^{33,36} The Afghan Symptom Checklist (ASCL 23-items, 5-point scale) was developed specifically in Kabul, to measure psychological distress using culturally-specific terminology.^{34,35}

With both children and caregivers, we implemented a Traumatic Events Checklist (TEC) adapted from the Harvard Trauma Questionnaire³⁷ and Gaza Traumatic Event Checklist.³⁸ Our review panel selected twenty (yes/no) items covering a range of events pertinent to Afghanistan, differentiating, where appropriate, direct experience from witnessing or hearing reports of an event, plus one yes/no item to allow for ‘any other’ traumatic

experience. Two additional items collected information on which lifetime event had been the *most* distressing (among those reported), and when it had occurred. All participants were given the time and opportunity to explain responses in depth, allowing for contextualisation of meaning, time and place regarding all items reported. Interviewers recorded statements verbatim. For students, we implemented CRIES in relation to the event reported as most distressing.

Sociodemographic data (e.g., displacement, economic status, education level, household characteristics) were collected from caregivers. We featured different markers of financial security, including a material wealth index (MWI) based on household ownership of 15 pre-specified items. Other data (health checks; interviews on aspirations and social environment) are not here reported.

Analyses

Following the literature, we used binary SDQ outcomes (probable vs. possible/unlikely psychiatric disorder), using a standard algorithm based on multi-informant ratings of symptoms + impact scores.^{24,25} We also used binary outcomes (CRIES 17+) to evaluate current psychological impact of the most (if any) distressing item reported. We used the full range of scores for other outcomes (DSRS, SRQ-20 and ASCL), to show results per unit increase (additional symptom reported on a dimensional scale), rather than arbitrary or disputed thresholds to discriminate poor/high mental health.³³ Psychometric scales demonstrated very good internal reliability (Cronbach's alpha >.74 for child and >.84 for adult outcomes).

We tested associations between 3 main outcomes (SDQ and CRIES with logistic regression, DSRS with linear regression) and 11 *a priori* risk factors: gender, exposure to trauma, residence area, ethnicity, caregiver mental health, type of caregiver, child/parental education, age, displacement history, material wealth, and household demographic composition. We then built multivariate models (informed by *a priori* hypotheses and univariate analyses) with 5 predictor variables in the following order: gender, traumatic events, caregiver mental health, residence area, child age. We excluded other variables (e.g., wealth, education) and potential effect modification (interaction with gender, age, or wealth), which had no significant impact on mental health outcomes. We present regression models with all 5 predictors to facilitate comparison across multiple outcomes (Table 2). Statistical analyses were adjusted for within-school gender distribution and clustering by school and area (using STATA 8.2); this accounts for the probability of selecting boys and girls in participating schools, as well as common variance within the clusters, producing robust

standard errors and conservative estimates for group comparisons. Sensitivity analyses using linear or categorical data (e.g., for trauma events) yielded similar findings.

We analysed reports of trauma in terms of exposure to and nature of events. For multivariate analysis, we examined the total number of events reported and 4 categories of exposure (0, 1-2, 3-4, 5+ events). For purposes of presentation, we grouped the 21 yes/no Trauma Event Checklist items into 6 types of events: severe physical injury, witnessed severe violence on another person, death/disappearance of a close relative, being in a combat zone, forced displacement from home, and ‘other’ event. This categorization was done for all reported events (Figure 3) and the *most* distressing lifetime event (Figure 4). For the latter, we systematically reviewed respondent statements about the specific trauma reported. Content analysis of these verbatim descriptions,³⁹ transcribed and reviewed manually by the research team in both English and vernacular languages, was used to categorize these reports into sub-types of traumatic experience. These sub-types are shown in Figure 4 for three of six main categories, in order to illustrate the range of events reported. Thematic analysis of respondent narratives will be published elsewhere.

FINDINGS

Sample socio-demographic characteristics

Our sample had equal gender representation across study sites. It included 1011 students, 1011 primary caregivers, and each child’s main classroom teacher (Figure 1). Caregivers included mothers (37.6%), fathers (24.5%), and close female (12.7%) or male (25.2%) relatives (aunts/uncles, grandparents, older siblings). The dataset excluded 9 cases with missing variables of interest.

Students averaged 13.5 (SD 1.6) years of age, and 5.7 years (SD 1.9) of formal education. Eight in ten (82.7%) had been displaced due to conflict and/or economic reasons, including 45.1% displaced three or more times (data not shown). One in ten children was orphaned from one or both parents. Two in ten worked outside of school hours. Unpaid work included service in market stalls or family-owned restaurants; paid work ranged from peddling goods, weaving carpets, and working as apprentices – the latter earning boys less than 50 pence a week. Most households (59.4%) were rated as very poor/poor, being unable to feed, shelter and/or clothe family members adequately. They averaged 5.6 (SD 3.2) MWI items: 52.6% had a piped water supply, 76.7% a radio and 52.8% a mobile phone. Most mothers (72.6%) and 39% of fathers had no formal education.

Mental health outcomes

The proportion of students meeting criteria for a probable psychiatric disorder (22.2%, [CI 19.6,24.7]; Table 1) was twice the ‘expectable’ rate for this age-group,⁴⁰ as predicted from multi-informant SDQ ratings based on symptoms and social functioning. Gender differences were pronounced for ‘any’ predicted psychiatric disorder, for emotional disorders, and for depression, with girls exhibiting higher levels than boys (Table 2; all $p < .0001$). No significant gender differences were observed for CRIES, with 23.9% [21.3,26.6] of students exhibiting strong feelings of intrusion/anxiety indicative of post-traumatic stress. All measures of child mental health and social functioning were significantly associated, indicating agreement across multiple informants and different measures (correlations not shown). There were also strong, multiple associations between child and caregiver mental health (e.g., $p < .0001$ between multi-informant SDQ ratings for the child and caregiver SRQ-20). These remained highly significant after disaggregating by type and gender of caregiver.

[Table 1]

Risk correlates of mental health

Four variables independently predicted SDQ ratings: female gender, exposure to multiple traumatic events, caregiver’s symptoms of poor mental health, and residence in Kabul (Table 2). The same variables associated with symptoms of depression. As for CRIES, no associations were found with gender or residence area, only with number of traumatic events, caregiver mental health, and age of child. Material wealth and paternal/maternal education had no impact on child outcomes. The same results were obtained from analyses based on the culturally-specific ASCL instead of SRQ-20 for caregiver data.

[Table 2]

Two risk factors, trauma exposure and caregiver mental health, were present across all three measures of child mental health. Exposure to 5+ traumatic events was clearly strongly predictive of poor outcomes (SDQ, OR=3.07 [1.78,5.30]; DSRS, $\beta=1.73$ [0.70,2.77]; CRIES, OR=3.07 [1.78,5.30]). In particular, CRIES intrusion/avoidance scores showed a dose-response effect (with odds ratios increasing for 3-4 and 5+ events). The influence of caregiver mental health was also consistent, albeit modest, as shown per additional symptom reported (SDQ, OR=1.11 [1.08,1.14]; DSRS, $\beta=0.07$ [0.01, 0.13]; CRIES, OR=1.06 [1.02, 1.09]). Other variables were significant for just one or two outcomes. Thus gender predicted SDQ ratings (OR=2.47 [1.65,3.68]) and symptoms of depression ($\beta=0.86$ [0.24,1.48]), but not CRIES.

Traumatic events

Two-thirds of all children (63.5% [60.5,66.5]) reported experiencing at least one traumatic event (Figure 3) and 8.4% [6.7,10.1] reported exposure to 5+ events. There were no gender differences by category of traumatic experiences (except forced displacement, $p<.036$).

[Figure 3; Figure 4]

Children's *most* distressing lifetime trauma was clearly related to violence: this encompassed injury, witnessing violence on another person, reporting the death/disappearance of close relatives, being in a combat zone, and forced displacement (Figure 4). In the first category (injury), children reported serious accidents, severe beatings by relatives or neighbours, frightening medical treatments, and painful illnesses without medical care; only 4 respondents mentioned war-related events such as landmine injury. The second category (witnessing violence) included war-related events (summary executions/beatings during Taliban rule, deaths from rocket explosions, mutilated/dead bodies), but also community-level and domestic violence. The deaths/losses of close relatives reported in the third category were primarily related to war, but also included accidents and criminal acts. The lifetime events reported as most distressing included both past and ongoing exposure to violence, during the Taliban period and after the fall of their regime (2001). Remarkably, many children escaped the burden of traumatic experiences, either reporting no exposure at all (36.5%) or exhibiting little psychological *sequelae* (CRIES scores) to adverse life events.

DISCUSSION

This is the first school-based survey of child mental health conducted in Afghanistan, yielding systematic data on 11-16 year old students in three central/northern areas. We provide evidence for several risk correlates: female gender, traumatic events, caregiver mental health, and residence area. We situate these findings in the wider literature, before stating study limitations and implications.

Evaluation

Gender differences in emotional problems for adolescents are well-known across cultures.^{22,23} In this sample, girls showed a two-fold risk for predicted psychopathology relative to boys, as well as higher symptoms of depression (Table 2). A gender dimension to poor mental health, rigorously documented here for 11-16 year olds, is certainly pronounced for Afghan adults¹³⁻¹⁴ reflecting the gender-based “schism” in social life.³³ A more unexpected finding²² is the relative burden of emotional and behavioural problems for boys

(SDQ ratings for emotional disorders exceeded those for conduct disorders). We found, however, no gender differences for symptoms indicative of post-traumatic stress (as measured by CRIES), in line with equivocal reports in the literature.⁴¹

Consistent with existing literature on war zones,³ exposure to traumatic events was strongly associated with mental health outcomes. Experiencing 5+ traumatic events trebled the risk of likely psychiatric disorder and post-traumatic stress, also elevating depression symptomology. Traumatic reports were related to violence, but not necessarily to acts of war: accidents, painful medical treatments and beatings by close relatives or neighbours vastly outnumbered war-related events (landmine/combat) among reports of severe physical injury. There was also significant exposure to ongoing, current adversity: thus children who had witnessed relatives executed/beaten by Taliban and *mujahideen* militia were still exposed to ongoing community-level and domestic violence (e.g., the beating of their mother or sibling by male relatives).

Child-caregiver associations were also consistent across multiple indicators of mental health status. We presented these associations in terms of each additional symptom reported by caregivers on a 20-point symptom scale, rather than use SRQ-20 thresholds with disputed significance in the literature.^{33,42} Thus each symptom reported by caregivers increased the odds of multi-informant ratings for child psychiatric disorder by some 11%. Results from analyses using the culturally-specific instrument (ASCL) for caregiver mental health were exactly the same as those generated with the international instrument (SRQ-20; data not shown). A small but significant impact was also recorded for depression and CRIES, per additional caregiver symptom reported. Associations between child-caregiver mental health have not been previously reported for Afghanistan, but are consistent with the few studies on war-affected adolescents which have been able to obtain parent/child data.³ We suggest that caregiver's mental health is linked to the wellbeing of younger generations under their care, a likely result of the interdependence between family members and shared experiences of adversity.

The greater burden of mental health problems in Kabul was an unexpected finding of this survey, given that violent conflict is also etched in the social and political past of Bamyan and Mazar-e-Sharif communities. Relative to the two other areas, Kabul children showed higher rates of probable psychiatric disorder and elevated depression symptomology, but no differences in symptoms akin to post-traumatic stress. Interestingly, residence in Kabul was also a risk factor for adult caregivers (data not shown). We relate area-specific findings to the multiplicity of ongoing social and economic stressors in the capital,^{43,44} where overcrowding,

high living costs, widening inequalities, pressure on resources and day-to-day stressors may compound other adversity directly related to war.^{45,46} This explanation, while plausible, needs investigation.

As highlighted in one review of psychiatric epidemiology: “factors other than war-related violence account for much of the psychological distress among people exposed to armed conflict” – yet “suffering related to poverty, displacement, poor health, spouse abuse, and social isolation simply does not draw the same level of international interest and concern as war-related trauma”.³⁵ Two large-scale surveys of adults in Afghanistan^{13,14} have linked a high prevalence of mental health problems with gender and exposure to traumatic events; yet, in both surveys, the most common trauma was ‘lack of food/water’ and ‘ill-health without medical care.’ In a handful of other studies, adult mental health for Afghans was associated with day-to-day social stressors,^{43,44} poverty,⁴² and socioeconomic inequalities in access to housing, social and health care.⁴⁷ In our study, material wealth and education predicted mental health outcomes for adult caregivers (data not shown), but not for the children. The one qualitative study focusing on children¹⁶ concluded that psychosocial wellbeing was largely influenced by daily stressors such as environmental threats (e.g., road conditions and traffic accidents). Daily stressors are not to be conflated with traumatic experiences. Yet in the aftermath of war, the notion of ‘trauma’ overlaps with that of ‘social suffering,’ drawing significance from consequences in both medical and social domains.⁴⁸

This cautions against simplistic characterisations of trauma. In Afghanistan, there are both spectacular and mundane forms of violence, ranging from armed insurgency to family conflict: both ‘explosive’ and ‘everyday’ violence, generating sudden pain and ongoing suffering. Our data suggest that, in Afghan children’s lives, ‘everyday’ violence matters just as much as militarized violence in the recollection of traumatic experiences. As their *most* traumatic lifetime experience, respondents identified a range of trauma events linked to physical and social stressors with significant repercussions on family dynamics, safety and health (Figure 4). Some children identified severe domestic beatings, a severe accident, or a frightening medical treatment as trauma that was more salient than having witnessed firsthand the deaths of parents and grandparents killed in rocket attacks. Conversely, others identified as their most severe trauma the death of a relative killed in the distant past, rather than recurrent distressing experiences of severe domestic beatings. The selective prioritisation of a particular event does not mean that it is *per se* the root cause of mental distress.⁷ However, it does suggest that children assign significance to war-related,

community, and family-level traumatic events on the basis of their current life circumstances and needs.⁴⁹

Evidence of psychological suffering must be balanced, however, against evidence of fortitude and coping with adversity. Our survey data fall just within the expected range [CIs] for emotional and behavioural disorders in children, namely an “overall prevalence of 10-15% (...) in children in the general population, which can increase up to 20% in regions of socioeconomic adversity.”⁵⁰ Some 22.2% [19.6,24.7] of students met multi-informant SDQ criteria for probable psychiatric rating, twice the rate (9.6%) found in British national school-based surveys⁴⁰ with the same methodology. Students, as well as caregivers and teachers, reported many symptoms of mental health difficulties, but also rated their social functioning positively (across domains of home, classroom, social, and leisure activities). By age 11-16, Afghans live in a society marked by ongoing, often multiple exposure to adverse and violent events, affecting everyday personal and social experiences. In this study, 63.5% [60.5,66.5] of child respondents reported exposure to traumatic events; 23.9% [21.3,26.6] exhibited substantial psychological distress in the wake of their most frightening lifetime event. As our data reveal, experiencing 5+ traumatic events has striking consequences for mental health, but there is some measure of resilience in negotiating the impact of 1-2 traumatic experiences (Table 2). Other literature emphasises that war-affected adolescents can present both high symptoms of psychopathology and competent social functioning,^{7,51} and that focusing on symptoms, without examining social impact, leads to “implausibly high” rates of mental health disorder.⁵²

Limitations

Three limitations of the study are explicitly noted: sampling bias, respondent bias and instrument diagnostic validity. A sampling bias was introduced by purposively choosing three geographical areas (not representative of the country overall) and failing to include children whose families could not, or chose not, to send them to school. Our survey captured a random sample of school-children, yielding the first dataset on a growing proportion of Afghan boys and girls attending state-sponsored schools. Because non-school attending children may be at greater risk of mental health disorder,²³ the sampling bias is likely to underestimate relationships observed in our data.

A known limitation of psychiatric research is that respondents have different competence and sensitivity when reporting mental health difficulties.^{23,24} Strict cultural prescriptions for gender segregation and assignment of responsibility for adolescent children influenced which caregiver came for interview (72% were fathers or male guardians in the

case of boys, 73% were mothers or female guardians in the case of girls). It is possible that female caregivers, who suffered poorer mental health than males, saw children in more negative light, which would exaggerate gender-based associations between adult and child mental health. However, the study derives methodological strength from providing ratings on mental health difficulties and social impact across three informants (children, caregivers, teachers):⁴⁰ this is hardly ever implemented in low-income or war-affected countries.²³ It is also possible that men and women were differentially inclined to report their distress or aggravate their problems to signal a need for material assistance,⁵³ although we paid careful attention to issues of communication, rapport, time and privacy.

We used instruments shown to be useful and valid for screening purposes in a range of Western/non-Western cultures and low/high income countries, but without clinical revalidation in Afghanistan. Our methodological strengths lie in the use of multiple instruments, with attention paid to cross-cultural reliability and validity.^{20,54} The multi-informant SDQ ratings go beyond a narrow focus on symptomology: they systematically include respondents' own evaluations of the functional and social significance of a child's mental health difficulties, in terms of causing distress and impairment in daily life. We are mindful of debates regarding the relevance of absolute thresholds for community-wide screening across cultures³³ and the important distinction between general psychological distress (suffering) and severe mental health disorder (pathology).^{18,55} Rather than seeking to establish prevalence rates for specific psychiatric disorders, we focus attention on risk factors for mental health problems and psychological distress, and the robustness of findings across multiple instruments.

Implications

Our study demonstrates the feasibility and potential value of working in schools to identify the nature and risk correlates of child mental health, using lay interviewers and brief instruments.³⁶ Our research was well-received; teachers remarked that they had not previously reflected on the impact mental health difficulties could have for scholastic performance and students commented that they had never previously been asked about their feelings related to school and/or home experiences. In this socially conservative context, many female caregivers had never been given the opportunity to visit the school or meet their child's teacher. Our study raised awareness of the importance of child mental health issues within school settings and suggests that school-based interventions would be well-received.

Community-level interventions, in the form of school-based mental health programmes, are nascent, localised initiatives in Afghanistan,⁴³ but already advocated²⁶ and

successful⁵⁶ in Pakistan and for children affected by political violence in the West Bank/Gaza⁵⁷ and Indonesia.⁵⁸ Policy support for public-health interventions¹ to alleviate trauma, mental health disorders and psychological distress is currently a priority¹² for the Afghan government. This is due to the acute shortage of qualified mental health care practitioners, the current level of provision of basic health and social services,⁵⁹ and the challenges of programming with youth.⁶⁰ Emerging consensus advocates several layers of support for mental health programmes in emergency settings: those targeting the family and community, as well as more specialist care for those in clinical need.⁵

We highlight two robust predictors of poor mental health outcomes for children: exposure to multiple trauma and caregiver mental health. The former predictor is consistent with findings in the existing literature. We draw attention, however, to the significance of everyday violence and trauma which is not narrowly focused on war. This serves to broaden understanding of trauma and place it in the context of ‘everyday’ forms of suffering, violence and adversity. The consistent, albeit modest, parent-child associations for mental health outcomes point to psychosocial suffering being embedded in household dynamics and shared adverse experiences. The simple but powerful conclusion of a meta-review of cross-cultural psychiatric research rings true for Afghan society: “the key to giving young people a good start in life is to help their parents.”¹ Our findings lend support to interventions which address mental health issues at family and community-level, framing policies to strengthen whole family units and enhance their access to basic social, health and educational services.^{5,12}

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Dari/Pashto versions of CRIES and DSRS on the Children and War Foundation website (www.childrenandwar.org).

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Figure 1: Sampling structure for a two-stage, stratified random survey

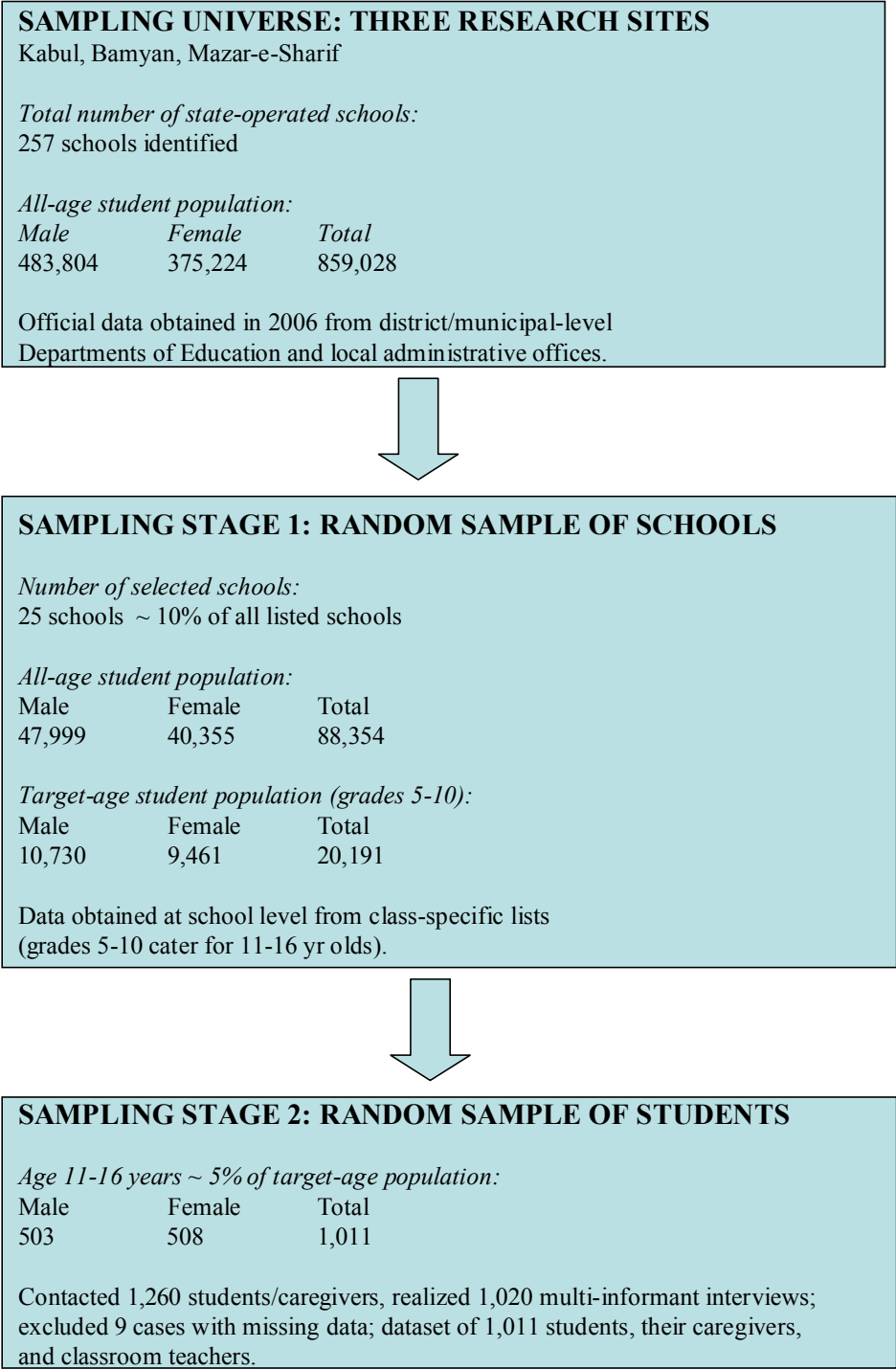


Figure 2: Summary of methodological framework

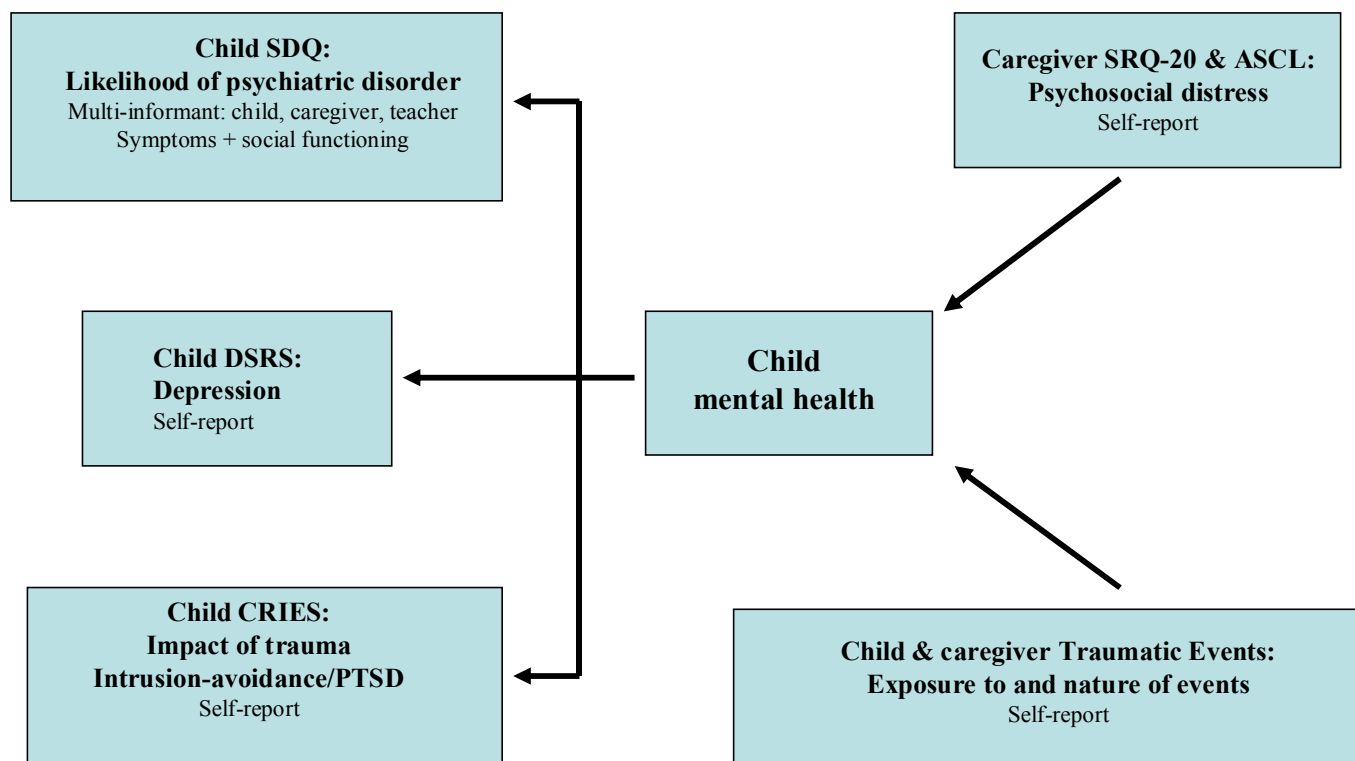


Figure 3: Reports of exposure to traumatic events: nature of event (n=1011)

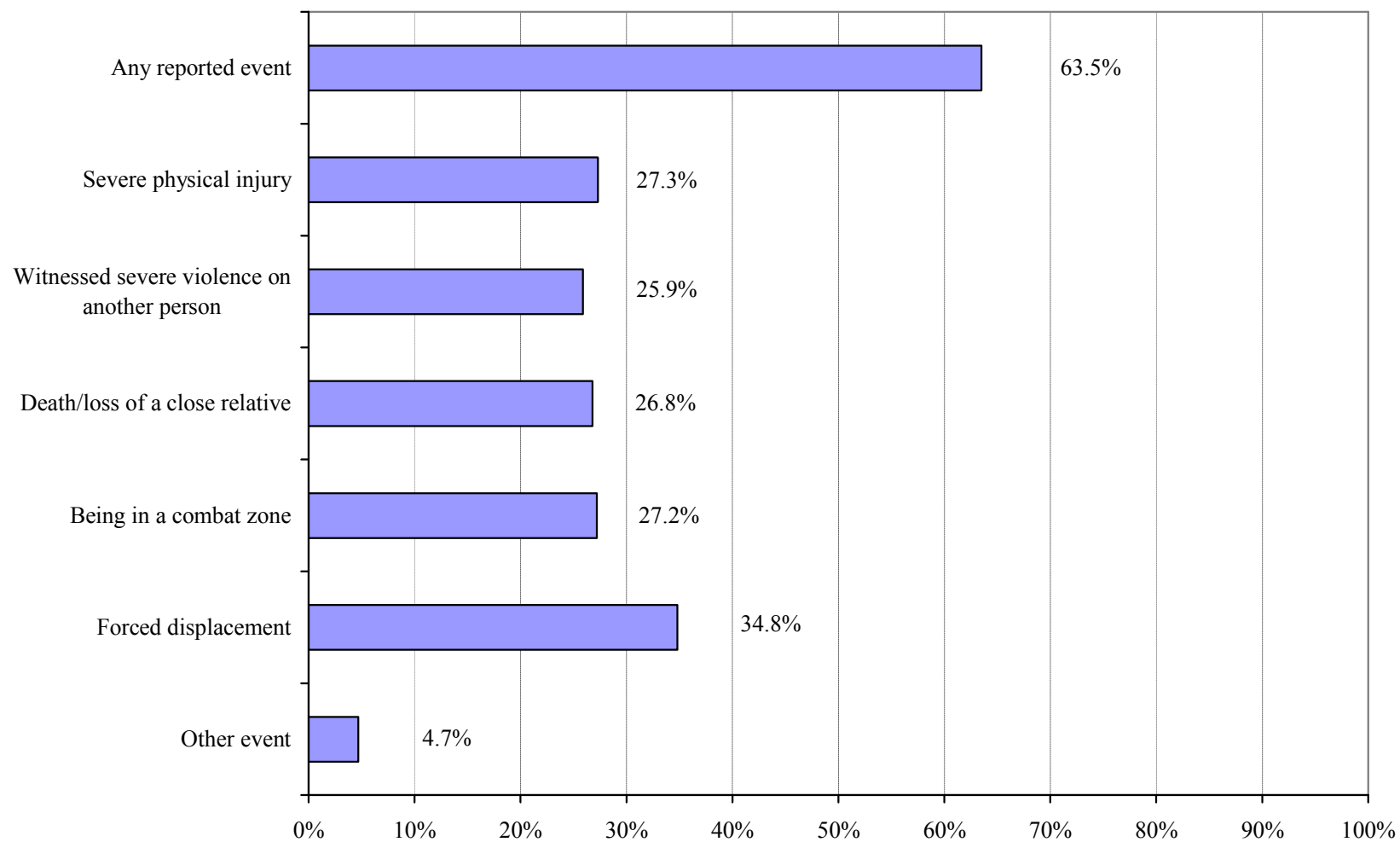
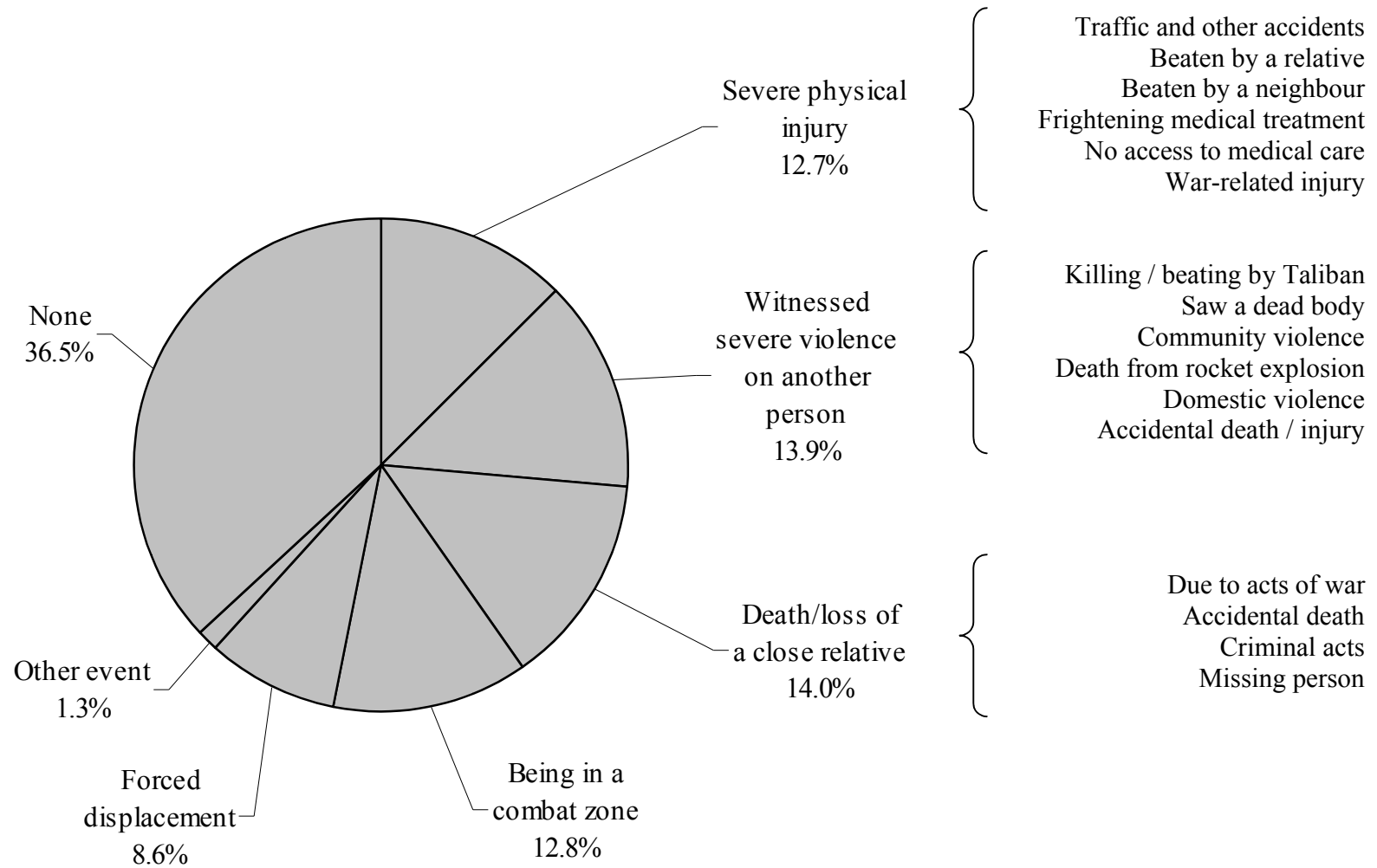


Figure 4: Reports of the *most* distressing lifetime event: types of traumatic experience (n=1011)



	Male n=503	Female n=508	Total n=1011
<i>Child's probable psychiatric disorder</i>			
SDQ multi-informant ratings, any disorder, No. (% [95% CI])	70 (13.9 [10.9, 17.0])	154 (30.3 [26.3, 34.3])	224 (22.2 [19.6, 24.7])
- Emotional	51 (10.1 [7.5, 12.8])	131 (25.8 [22.0, 29.6])	182 (18.0 [15.6, 20.4])
- Conduct	20 (4.0 [2.3, 5.7])	29 (5.7 [3.7, 7.7])	49 (4.8 [3.5, 6.2])
- Hyperkinetic	1 (0.2 [-0.2, 0.6])	2 (0.4 [-0.2, 0.9])	3 (0.3 [-0.1, 0.6])
<i>Child's symptoms of depression</i>			
Overall DSRS score, mean (SD)	7.82 (3.67)	8.83 (4.33)	8.33 (4.05)
<i>Child's symptoms of intrusion/anxiety</i>			
CRIES, scores in high range (17+), No. (% [95% CI])	106 (21.1 [17.5, 24.6])	136 (26.8 [22.9, 30.6])	242 (23.9 [21.3, 26.6])
<i>Caregiver's mental health</i>			
International instrument, mean SRQ-20 (SD)	5.50 (3.74)	9.43 (4.53)	7.47 (4.59)
Culturally-specific instrument, mean ASCL (SD)	38.02 (10.98)	52.43 (15.82)	45.26 (15.41)

Table 1. Mental health status of Afghan 11-16 year old students and caregivers (observed proportions and mean scores)

	<i>Likelihood of psychiatric disorder¹</i>		<i>Symptoms of depression²</i>		<i>Symptoms of intrusion-avoidance³</i>	
	Adjusted OR [95% CI]	p value	Adjusted β coefficient [95% CI]	p value	Adjusted OR [95% CI]	p value
<i>Gender of child</i>						
Male	1				1	
Female	2.47 [1.65, 3.68]	<.0001	0.86 [0.24, 1.48]	.009	1.16 [0.85, 1.59]	.325
<i>Child exposure to traumatic events</i>						
None reported	1				-	
1, 2 events	0.97 [0.72, 1.31]	.850	-0.01 [-0.51, 0.49]	.970	1	
3, 4 events	1.07 [0.69, 1.65]	.768	1.41 [0.63, 2.19]	.001	2.05 [1.35, 3.10]	.002
5+ events	2.58 [1.36, 4.90]	.006	1.73 [0.70, 2.77]	.002	3.07 [1.78, 5.30]	<.0001
<i>Caregiver's mental health problems</i>						
SRQ-20 (per symptom reported)	1.11 [1.08, 1.14]	<.0001	0.07 [0.01, 0.13]	.019	1.06 [1.02, 1.09]	.002
<i>Area of residence</i>						
Kabul	1				1	
Bamyan	0.29 [0.17, 0.51]	<.0001	-2.19 [-3.06, -1.31]	<.0001	1.15 [0.69, 1.89]	.578
Mazar	0.37 [0.23, 0.57]	<.0001	-2.42 [-3.29, -1.55]	<.0001	0.98 [0.70, 1.37]	.893
<i>Child age</i>						
(per yr increase)	1.00 [0.89, 1.13]	.968	-0.05 [-0.23, 0.12]	.526	1.19 [1.04, 1.36]	.016

Table 2: Variables associated with child mental health outcomes

¹multi-informant SDQ ratings (logistic regression for probable vs. other outcome, n=1011); ²DSRS scores reported by child (linear regression, n=1011); ³CRIES scores reported by child (logistic regression for 0-17 vs. 17+, n=639 for sub-sample reporting exposure to traumatic experiences); ¹⁻³ Analyses are adjusted for within-school gender distribution and clustering by school and residence area.

	Instrument	Respondent	Cross-cultural usage and usefulness for clinical diagnosis
A. Children			
Likelihood of psychiatric disorder			
	Strength and Difficulties Questionnaire (SDQ)	Children, caregivers, teachers (about the child)	Translated in over 47 languages; used as a research tool in developmental, social, clinical and educational studies; validated for 11-16 year olds, in clinic and community settings in both Western and non-Western cultures, ^{1,2} including national surveys in Britain, ³ Brazil ⁴ and Russia, ⁵ and specific surveys to establish mental health profiles in Bangladesh, ⁶ Pakistan, ⁷ Yemen ^{1,8} and Gaza. ⁹ Performs as well as the Child Behaviour Checklist, while being much briefer. ¹⁰ A computerized/paper-and-pencil algorithm ^{6,11} triangulates ratings from multiple informants (child, caregiver, teacher) on symptoms of mental health difficulties and impact on social life, to compute prevalence rates of overall caseness (unlikely/possible/probable psychiatric disorder) and types of disorder (emotional, behaviour, hyperkinetic). ¹⁰ The SDQ offers several key advantages as a clinical and research screening tool: it is brief, comprehensive of the range of child and adolescent disorders, simple in administration and scoring, and psychometrically evaluated in a wide range of cultures. ^{1,2} The robustness, predictive power and validity of individual SDQ ratings and multi-informant algorithm, in terms of likely clinical diagnosis, are well demonstrated in the UK, ⁶ Bangladesh, ^{6,11} Pakistan, ^{7,12} the Yemen ⁸ and Gaza ⁹ for 11-16 year olds. In the last 10 years, the SDQ has been used extensively as a screening tool to determine prevalence rates and risk factors for mental

			health assessment.
Depression			
	Birleson Depression Self-Rating Scale (DSRS)	Children (about self)	Implemented to obtain normative data in school-based surveys across cultures, and more specifically evaluate depression for children in communities afflicted by war in UK ¹³ and Bosnia-Herzegovina, ¹⁴⁻¹⁷ routine community-level violence ¹⁸ or specific traumatic events. ¹⁹ The scale has good face and factorial validity ¹⁴ for use in 9-14 year olds across cultures. Studies variously use continuous or dichotomised scores to identify risk factors for likely clinical depression; ¹⁵ cut-off points have varied between 13 and 17 to differentiate between severely and non-severely depressed children, with a threshold of 15 offering good specificity and sensitivity in terms of clinical diagnosis. ^{11,20,21} This instrument has been used in conjunction with SDQ and CRIES in many studies, for example in UK ¹³ and Bosnia-Herzegovina. ^{14,15}
PTSD-like symptoms of intrusion/avoidance			
	Child Revised Impact of Events Scale (CRIES-13)	Children (who reported at least one traumatic event)	Impact of event scales have been widely implemented with adolescents affected by war, community violence, chaotic or catastrophic events. CRIES was used in Cambodia, ²² Bosnia-Herzegovina ²³ and Iraq, ²⁴ as well as with young refugees to Western countries. ¹³ It demonstrates satisfactory internal consistency and excellent validity where cross-validated with other diagnostic interviews. ²² For screening purposes, the Children and War Foundation recommended a total score of 17+ on the CRIES-13 intrusion and avoidance sub-scales, indicating high probability that the child would obtain a diagnosis of PTSD. ¹⁴

B. Adults			
Burden of common mental health problems			
	Self-Reported Questionnaire (SRQ-20)	Adult caregivers (about self)	Extensively used for psychiatric case-finding and epidemiological research in community settings with poor health or research infrastructure. ²⁵ Clinically validated in Afghanistan ²⁶ and Pakistan ^{27,28} and used to appraise levels of social adversity for Afghan women in refugee camps, ²⁹ life stress and chronic depression in rural Pakistan ^{30,31} and mental distress in urban Pakistan. ³² The use of thresholds to demarcate poor/good mental health is not standard in the literature, and currently disputed in the case of Afghanistan. ²⁷
Psychosocial distress			
	Afghan Symptom Checklist (ASCL)	Adult caregivers (about self)	Culturally-specific psychometric questionnaire developed specifically for Afghan adults. ³³ It demonstrates excellent reliability, good construct validity, and correlation with Western psychiatric instruments. ^{33,34} Analysis is based on the continuous symptom scale, not thresholds.

Table for online access: Mental health screening tools for child and adult respondents

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ONGOING VIOLENCE, SUFFERING AND MENTAL HEALTH: A SCHOOL-BASED SURVEY IN AFGHANISTAN

Background: Previous surveys in Afghanistan have documented significant mental health problems among adults. We conducted the first-ever survey of 11-16 year olds.

Methods: In 2006, we interviewed a cluster sample of 1011 children, their caregivers and teachers, randomly sampled in 25 government-operated schools within three purposively chosen areas. For students, we administered the Strength and Difficulties Questionnaire (SDQ) to predict likely psychiatric disorder from multi-informant ratings; the Depression Self-Rating Scale; and an Impact of Events Scale. For caregivers, we used both international and culturally-specific screening instruments (Self-Reported Questionnaire; Afghan Symptom Checklist). We implemented a Checklist of Traumatic Events to examine the exposure to and nature of traumatic experiences.

Findings: Two risk factors, trauma exposure and caregiver mental health, were present across all child outcomes. SDQ ratings were associated with female gender (OR=2.47[1.65,3.68]), 5+ traumatic events (OR=2.58[1.36,4.90]), caregiver mental health (OR=1.11[1.08,1.14]), and residence areas (ORs=0.29[0.17,0.51] and OR=0.37[0.23,0.57] vs. Kabul as reference). The same variables predicted depressive symptoms. Two-thirds of children reported traumatic experiences. Symptoms of post-traumatic stress were associated with 5+ events (OR=3.07[1.78,5.30]), caregiver mental health (OR=1.06[1.02,26.6]) and child age (OR=1.19[1.04,1.36]). Children's *most* distressing trauma included accidents, medical treatment, domestic and community-level violence, as well as war-related events.

Interpretation: Young Afghans experience ongoing exposure to violence, which is not narrowly confined to war-related events. The study highlights the potential value of school-based initiatives to address child mental health, and the importance of understanding trauma in the context of 'everyday' forms of suffering, violence and adversity.

Word count (text only): ~~5,379~~ 5,359

INTRODUCTION

Child and adolescent mental health sits high on the international public health agenda.¹ According to researchers working in conflict zones, however, there is still “a serious dearth of systematic empirical information” on war-affected and displaced youth.^{2,3} The literature shows an overwhelming focus on identifying traumatic stress and other negative sequelae of war, to a point where calls have been made to identify factors underlying vulnerability and resilience to social and economic upheaval in the wake of war,^{4,5} rather than just confirm the obvious - that “war is bad for children.”⁶ Current research and policy initiatives in conflict and disaster settings also seek to broaden the evidence base, through examining a fuller range of psycho-social dimensions of mental health.⁷⁻⁹ The literature highlights crucial gaps in research, policy and practice regarding war-affected children¹⁰ and demands rigorous research to inform a broader understanding of psychosocial wellbeing and mental health. In this context, a child-focused assessment of trauma, suffering and social functioning is vital.

Afghanistan has endured a combination of armed conflict, widespread poverty and social injustice. State education and healthcare systems have been severely crippled, as were community networks of social support.^{11,12} Previous large-scale surveys have documented a broad spectrum of mental health problems in the adult population, including depression, anxiety and post-traumatic stress, associated with gender and exposure to traumatic events.^{13,14} No systematic survey has yet focused on young people, although an unpublished UNICEF study in 1997 reported that 90% of 300 children interviewed in Kabul believed they would die in the war, while 80% said they were sad, frightened, and unable to cope with life.¹⁵ Conversely, a qualitative study led by Save The Children (2003), involving 437 children and adult carers in Kabul, sought to dispel the notion that the majority of young Afghans were “traumatized by their experiences of conflict.”¹⁶

We conducted the first large-scale survey of child mental health, in three areas of Afghanistan. In order to assess mental health and life adversity from multiple viewpoints, we featured interviews with children, caregivers and teachers; for this reason, we situated the study in schools. The education sector has significantly expanded since the fall of the Taliban (2001) and the “Back to School” campaign beginning in 2002: a large number of government-sponsored schools have opened, ranging from *lycée* to Islamic *madrassa*, catering for girls as well as boys in primary and secondary-level education. While full census data exist only for 1979, national surveys reported that 64% of 7-14 year-olds (girls, 48%; boys, 77%) attended school in 2004-05;¹⁷ school attendance is rapidly growing in central and northern

Afghanistan, given a relatively stable governance after a long period of civil war. Particularly in Kabul, educational institutions hardly cope with the influx of students: most teach two shifts per day and many hold classes in outdoor tents as well as classrooms. We found schools to be the best point of contact for drawing a community-level sample because they provided an appropriate context for research activities, ensured the safety of the field team, and enabled the delivery of a complex field protocol. We could not overcome formidable barriers (affecting rapport and interview privacy) to a systematic sampling of out-of-school children. We targeted 11-16 year-olds, to allow respondents to articulate for themselves views about adversity, health and social functioning. Our baseline study thus speaks to the needs of children able to attend school and old enough to evaluate their experiences.

An integrative approach has been advocated in the Lancet to bridge medical and social understandings of trauma, post-traumatic stress and psychological impairment in the wake of war.¹⁸ In line with this approach, we provide an epidemiological profile of child mental health and an analysis of events reported as trauma. With screening instruments, we examined the nature of mental health problems, testing specific associations with gender, traumatic events, caregiver mental health, and socio-demographic characteristics. From respondent accounts collected during implementation of a checklist, we examined the exposure to and nature of trauma events.

METHODS

Study Design

In 2006 (May-December), we conducted a two-stage, school-based cross-sectional survey, interviewing 11-16 year-old students, their primary caregivers, and classroom teachers (Figure 1). To capture a range of historical, social and economic experiences, we purposively selected three research sites (Kabul, Bamyán and Mazar-e-Sharif municipalities) in central/northern Afghanistan, excluding for security reasons areas in the south/southeast. We built upon extensive experience: surveys in Wardak province (2004) where schools could not be randomly selected, and in Afghan refugee camps of Pakistan (2005) where the protocol was successful, allowing us to perfect rapport-building strategies and test instrument reliability.

[Figure 1]

We adopted a stratified random sampling design. Because school records were not centrally available, exhaustive lists of all state-operated schools (n=257 in the 3 areas), with size of student population, had to be obtained from local administrative offices. In stage 1,

we drew a random sample of 25 schools (10% of those listed), with probability sampling proportional to size, and additional stratification in Kabul across its 16 educational zones to achieve spread across city areas. To provide balanced geographical and gender coverage, we selected 8-9 schools per research site, with equal numbers of boy/girl schools (we drew a total of 14 single-sex schools and 11 co-educational schools). For each participating school, we enlisted teachers to compile up-to-date, age-specific class lists for grades 5-10, which cater for 11-16 year olds - due to curtailed education under the Taliban, a single grade includes a wide age-range of students. In stage 2, we drew a random sample of students, selecting a minimum of 40 participants from each school (20 boys/20 girls from co-educational schools, which hold separate am/pm shifts for boys/girls). Our sample (n=1,011) represented 5% of all students in target grades.

We aimed for 290 participants per area, given power calculations based on pilot work using identical instruments with 11-16 year-old Afghan school-children, caregivers and teachers ($\alpha=.05$, 95% CI, two-sided test to detect a 5% difference in prevalence rates for primary outcomes). Our target sample was 15% above this number. Rapport was developed by initiating school-based activities prior to survey, offering small, locally-appropriate gifts to respondents (e.g. refreshment/notebook) and schools (e.g. heater/water cooler) and health checks on nutritional status and blood pressure (but not medical care) as gestures of goodwill. All selected students agreed to participate: they were eager to be interviewed because of the novelty of our research activity. Caregivers (adults with direct responsibility for the child) were recruited through the students - they included male/female parents or other relatives, reflecting the strict gender segregation of daily life and the role of extended families in childcare. To realize 40 multi-informant interviews per school within a 10 day-period/school, we contacted 1,260 students, met with 1,021 caregivers (81%), and interviewed 1,020 within the allocated time; only one father refused to participate. If a caregiver did not come to the school, we could not obtain informed consent, and therefore did not interview the child. Teachers repeatedly asked us why *all* students could not be included; as a matter of courtesy, we did interview (but excluded from the dataset) a handful of keen volunteers, unselected by random procedures.

A small team of well-trained researchers moved sequentially from school to school - this maximized data quality/comparability and rapport/participation. Suitable interviewers were recruited from a pool of previously experienced researchers, and given three weeks' field training by the senior academics and project manager. Training included interview techniques sensitive to gender, ethnicity and age differentials, as well as measuring health

status; blood pressure measurements helped establish rapport with participants, as high/low blood pressure is a local idiom for being agitated/depressed. Three male and three female staff (fluent in Dari/Pashto) were contracted for 8 months, to interview students, caregivers and teachers – in face-to-face, private encounters, on school premises. One professional translator handled all verbatim data. An Afghan medical doctor helped with health checks/referrals. Two Afghan clinical psychologists were involved in piloting and review of instruments, but could not be retained for the duration of survey. The project manager, fluent in English and local languages, liaised with schools, explained the research to participants, checked completed questionnaires daily and verified translations of verbatim data. Other authors were on-site during staff training, instrument pre-testing and review, data collection, translation and evaluation. Protocol was approved by Durham University, the Ministry of Education in Kabul, its subsidiary departments in Kabul, Bamyan and Mazar-e-Sharif, and all school directors; informed consent was obtained from parents/guardians first, then from children and class teachers, in verbal form.

Instruments

We used multiple screening tools for child/adult mental health (Figure 2). Instruments were chosen on the basis of simplicity, reliability, good psychometric properties for the target age-group¹⁹ and extensive usage as research tools in schools and low-income/conflict/disaster settings (e.g., in Gaza, Bosnia, Bangladesh and Pakistan; Table for online publication). Where no clinical revalidation has been possible, such tools effectively screen for *likely* child/adolescent mental health disorders and/or distress symptomology. An Afghan clinical psychologist, with professional experience in Afghanistan and Britain, translated instruments from English to Dari and Pashto. Independently of each other, one professional translator and one linguist undertook blind back-translations. Both sets of translations and back-translations were systematically reviewed for content validity, by an Afghan group of bi/trilingual fieldworkers/academic staff with expertise in social work, anthropology and clinical psychology, then vetted by Western experts in psychology/psychiatry. Three extensive pilots, including measurement (test-retest) reliability, were conducted in a range of Afghan communities (Wardak, Peshawar, Kabul). These steps conform to procedures advocated for instruments used in transcultural research.²⁰

[Figure 2] [Table for online publication]

The Strength and Difficulties Questionnaire (SDQ) was implemented with students, primary caregivers and main classroom teachers, to identify children for whom a psychiatric disorder is ‘unlikely’, ‘possible’, or ‘probable.’ The SDQ is a simple and effective screening

tool providing balanced coverage of behavioural, emotional and social problems,^{21,22} which can be self-completed by children aged 11+. Its four sub-scales - emotional, behavioural, hyperactive and peer problems, reflecting ICD-10 and DSM-IV criteria - yield a total score for mental health “difficulties;” a fifth sub-scale taps “strengths” or prosocial behaviour; supplementary questions measure the impact of a child’s difficulties (rated by multiple respondents) for home, classroom, social, and leisure activities. Notably, the SDQ predicts psychiatric disorder on the basis of both *symptoms* and *impact* on social functioning and can triangulate ratings across informants, which better predicts mental health disorders than information from just one source.^{23,24} Single-informant SDQ ratings have been used and validated in Bangladesh,²⁵ Pakistan,^{26,27} the Yemen²⁸ and Gaza.²⁹ A multi-informant categorization of children³⁰ is generated by a computerized algorithm predicting that probable disorders are present where symptom scores exceed 95th centiles and impact scores are definite or severe (<http://www.sdqscore.net>). It has been validated in Britain and Bangladesh,^{25,30} and shown to work equally well in both settings. We developed SDQ versions in Dari and Pashto (now copyrighted, see www.sdqinfo.com).

Two other instruments were administered to students. The Birmaher Depression Self-Rating Scale (DSRS) is a brief screening tool (18 items, 3-point scale) for child depressive symptoms,³¹ which discriminates effectively between severely and non-severely depressed children, although various cut-off points are used in the literature. The Child Revised Impact of Events Scale (CRIES-13 items, 4-point scale) measures the impact of traumatic experiences; scores of 17+ for combined intrusion/ avoidance symptoms indicate a level of distress consistent with post-traumatic stress (i.e. PTSD-like symptoms).³² We developed DSRS and CRIES versions in Dari and Pashto for the Children and War Foundation (www.childrenandwar.org).

For caregiver mental health, we used two instruments validated for Afghanistan.³³⁻³⁵ The Self-Reported Questionnaire (SRQ-20 items, yes/no responses) is an international instrument recommended for epidemiological research in low-income countries.^{33,36} The Afghan Symptom Checklist (ASCL 23-items, 5-point scale) was developed specifically in Kabul, to measure psychological distress using culturally-specific terminology.^{34,35}

With both children and caregivers, we implemented a Traumatic Events Checklist (TEC) adapted from the Harvard Trauma Questionnaire³⁷ and Gaza Traumatic Event Checklist.³⁸ Our review panel selected twenty (yes/no) items covering a range of events pertinent to Afghanistan, differentiating, where appropriate, direct experience from witnessing or hearing reports of an event, plus one yes/no item to allow for ‘any other’ traumatic

experience. Two additional items collected information on which lifetime event had been the *most* distressing (among those reported), and when ~~it the latter~~ had occurred. All participants were given the time and opportunity to explain responses in depth, allowing for contextualisation of meaning, time and place regarding all items reported. Interviewers recorded statements verbatim. For students, we implemented CRIES in relation to the event reported as most distressing.

Sociodemographic data (e.g., displacement, economic status, education level, household characteristics) were collected from caregivers. We featured different markers of financial security, including a material wealth index (MWI) based on household ownership of 15 pre-specified items. Other data (health checks; interviews on aspirations and social environment) are not here reported.

Analyses

Following the literature, we used binary SDQ outcomes (probable vs. possible/unlikely psychiatric disorder), using a standard algorithm based on multi-informant ratings of symptoms + impact scores.^{24,25} We also used binary outcomes (CRIES 17+) to evaluate current psychological impact of the most (if any) distressing item reported. We used the full range of scores for other outcomes (DSRS, SRQ-20 and ASCL), to show results per unit increase (additional symptom reported on a dimensional scale), rather than arbitrary or disputed thresholds to discriminate poor/high mental health.³³ Psychometric scales demonstrated very good internal reliability (Cronbach's alpha >.74 for child and >.84 for adult outcomes).

We tested associations between 3 main outcomes (SDQ and CRIES with logistic regression, DSRS with linear regression) and 11 *a priori* risk factors: gender, exposure to trauma, residence area, ethnicity, caregiver mental health, type of caregiver, child/parental education, age, displacement history, material wealth, and household demographic composition. We then built multivariate models (informed by *a priori* hypotheses and univariate analyses) with 5 predictor variables in the following order: gender, traumatic events, caregiver mental health, residence area, child age. We excluded other variables (e.g., wealth, education) and potential effect modification (interaction with gender, age, or wealth), which had no significant impact on mental health outcomes. We present regression models with all 5 predictors to facilitate comparison across multiple outcomes (Table 2). Statistical analyses were adjusted for within-school gender distribution and clustering by school and area (using STATA 8.2); this accounts for the probability of selecting boys and girls in participating schools, as well as common variance within the clusters, producing robust

standard errors and conservative estimates for group comparisons. Sensitivity analyses using linear or categorical data (e.g., for trauma events) yielded similar findings.

We analysed reports of trauma in terms of exposure to and nature of events. For multivariate analysis, we examined the total number of events reported and 4 categories of exposure (0, 1-2, 3-4, 5+ events). For purposes of presentation, we grouped the 21 yes/no Trauma Event Checklist items into 6 types of events: severe physical injury, witnessed severe violence on another person, death/disappearance of a close relative, being in a combat zone, forced displacement from home, and ‘other’ event. This categorization was done for all reported events (Figure 3) and the *most* distressing lifetime event (Figure 4). For the latter, we systematically reviewed respondent statements about the specific trauma reported. Content analysis of these verbatim descriptions,³⁹ transcribed and reviewed manually by the research team in both English and vernacular languages, was used to categorize these reports into sub-types of traumatic experience. These sub-types are shown in Figure 4 for three of six main categories, in order to illustrate the range of events reported. For this paper, we quantified the frequency of these sub-types of trauma in order to provide a more detailed picture of reported events, as shown in Figure 4 for three of the six main categories. Thematic analysis of respondent narratives will be published elsewhere.

FINDINGS

Sample socio-demographic characteristics

Our sample had equal gender representation across study sites. It included 1011 students, 1011 primary caregivers, and each child’s main classroom teacher (Figure 1). Caregivers included mothers (37.6%), fathers (24.5%), and close female (12.7%) or male (25.2%) relatives (aunts/uncles, grandparents, older siblings). The dataset excluded 9 cases with missing variables of interest.

Students averaged 13.5 (SD 1.6) years of age, and 5.7 years (SD 1.9) of formal education. Eight in ten (82.7%) had been displaced due to conflict and/or economic reasons, including 45.1% displaced three or more times (data not shown). One in ten children was orphaned from one or both parents. Two in ten worked outside of school hours. Unpaid work included service in market stalls or family-owned restaurants; paid work ranged from peddling goods, weaving carpets, and working as apprentices – the latter earning boys less than 50 pence a week. Most households (59.4%) were rated as very poor/poor, being unable to feed, shelter and/or clothe family members adequately. They averaged 5.6 (SD 3.2) MWI

items: 52.6% had a piped water supply, 76.7% a radio and 52.8% a mobile phone. Most mothers (72.6%) and 39% of fathers had no formal education.

Mental health outcomes

The proportion of students meeting criteria for a probable psychiatric disorder (22.2%, [CI 19.6,24.7]; Table 1) was twice the ‘expectable’ rate for this age-group,⁴⁰ as predicted from multi-informant SDQ ratings based on symptoms and social functioning. Gender differences were pronounced for ‘any’ predicted psychiatric disorder, for emotional disorders, and for depression, with girls exhibiting higher levels than boys (Table 2; all $p < .0001$). No significant gender differences were observed for CRIES, with 23.9% [21.3,26.6] of students exhibiting strong feelings of intrusion/anxiety indicative of post-traumatic stress. All measures of child mental health and social functioning were significantly associated, indicating agreement across multiple informants and different measures (correlations not shown). There were also strong, multiple associations between child and caregiver mental health (e.g., $p < .0001$ between multi-informant SDQ ratings for the child and caregiver SRQ-20). These remained highly significant after disaggregating by type and gender of caregiver.

[Table 1]

Risk correlates of mental health

Four variables independently predicted SDQ ratings: female gender, exposure to multiple traumatic events, caregiver’s symptoms of poor mental health, and residence in Kabul (Table 2). The same variables associated with symptoms of depression. As for CRIES, no associations were found with gender or residence area, only with number of traumatic events, caregiver mental health, and age of child. Material wealth and paternal/maternal education had no impact on child outcomes. The same results were obtained from analyses based on the culturally-specific ASCL instead of SRQ-20 for caregiver data.

[Table 2]

Two risk factors, trauma exposure and caregiver mental health, were present across all three measures of child mental health. Exposure to 5+ traumatic events was clearly strongly predictive of poor outcomes (SDQ, OR=3.07 [1.78,5.30]; DSRs, $\beta=1.73$ [0.70,2.77]; CRIES, OR=3.07 [1.78,5.30]). In particular, CRIES intrusion/avoidance scores showed a dose-response effect (with odds ratios increasing for 3-4 and 5+ events). The influence of caregiver mental health was also consistent, albeit modest, as shown per additional symptom reported (SDQ, OR=1.11 [1.08,1.14]; DSRs, $\beta=0.07$ [0.01, 0.13]; CRIES, OR=1.06 [1.02, 1.09]). Other variables were significant for just one or two outcomes. Thus gender predicted

SDQ ratings (OR=2.47 [1.65,3.68]) and symptoms of depression ($\beta=0.86$ [0.24,1.48]), but not CRIES.

Traumatic events

Two-thirds of all children (63.5% [60.5,66.5]) reported experiencing at least one traumatic event (Figure 3) and 8.4% [6.7,10.1] reported exposure to 5+ events. There were no gender differences by category of traumatic experiences (except forced displacement, $p<.036$).

[Figure 3; Figure 4]

Children's *most* distressing lifetime trauma was clearly related to violence: this encompassed injury, witnessing violence on another person, reporting the death/disappearance of close relatives, being in a combat zone, and forced displacement (~~in equal proportions~~, Figure 4). In the first category (injury), children reported serious accidents, severe beatings by relatives or neighbours, frightening medical treatments, and painful illnesses without medical care; only 4 respondents mentioned war-related events such as landmine injury. only 4 children (2%) reported war-related events; serious accidents, severe beatings by relatives or neighbours, frightening medical treatments, and painful illnesses without medical care were far more common. The second category (witnessing violence) included war-related events (summary executions/beatings during Taliban rule, deaths from rocket explosions, mutilated/dead bodies), but also community-level and domestic violence. The deaths/losses of close relatives reported in the third category were primarily related to war, but also included accidents and criminal acts. ~~Among lifetime events reported as most distressing, 16% had occurred prior to Taliban rule, 40% during the Taliban period (1996-2001), and 44% after the fall of their regime (2001-present), indicating both past and ongoing exposure to violence and distressing experiences. The lifetime events reported as most distressing included both past and ongoing exposure to violence, during the Taliban period and after the fall of their regime (2001).~~ Remarkably, many children escaped the burden of traumatic experiences, either reporting no exposure at all (36.5%) or exhibiting little psychological *sequelae* (CRIES scores) to adverse life events.

DISCUSSION

This is the first school-based survey of child mental health conducted in Afghanistan, yielding systematic data on 11-16 year old students in three central/northern areas. We provide evidence for several risk correlates: female gender, traumatic events, caregiver mental

health, and residence area. We situate these findings in the wider literature, before stating study limitations and implications.

Evaluation

Gender differences in emotional problems for adolescents are well-known across cultures.^{22,23} In this sample, girls showed a two-fold risk for predicted psychopathology relative to boys, as well as higher symptoms of depression (Table 2). A gender dimension to poor mental health, rigorously documented here for 11-16 year olds, is certainly pronounced for Afghan adults¹³⁻¹⁴ reflecting the gender-based “schism” in social life.³³ A more unexpected finding²² is the relative burden of emotional and behavioural problems for boys (SDQ ratings for emotional disorders exceeded those for conduct disorders). We found, however, no gender differences for symptoms indicative of post-traumatic stress (as measured by CRIES), in line with equivocal reports in the literature.⁴¹

Consistent with existing literature on war zones,³ exposure to traumatic events was strongly associated with mental health outcomes. Experiencing 5+ traumatic events trebled the risk of likely psychiatric disorder and post-traumatic stress, also elevating depression symptomology. Traumatic reports were related to violence, but not necessarily to acts of war: accidents, painful medical treatments and beatings by close relatives or neighbours vastly outnumbered war-related events (landmine/combat) among reports of severe physical injury. There was also significant exposure to ongoing, current adversity: thus children who had witnessed relatives executed/beaten by Taliban and *mujahideen* militia were still exposed to ongoing community-level and domestic violence (e.g., the beating of their mother or sibling by male relatives).

Child-caregiver associations were also consistent across multiple indicators of mental health status. We presented these associations in terms of each additional symptom reported by caregivers on a 20-point symptom scale, rather than use SRQ-20 thresholds with disputed significance in the literature.^{33,42} Thus each symptom reported by caregivers increased the odds of multi-informant ratings for child psychiatric disorder by some 11%. Results from analyses using the culturally-specific instrument (ASCL) for caregiver mental health were exactly the same as those generated with the international instrument (SRQ-20; data not shown). A small but significant impact was also recorded for depression and CRIES, per additional caregiver symptom reported. Associations between child-caregiver mental health have not been previously reported for Afghanistan, but are consistent with the few studies on war-affected adolescents which have been able to obtain parent/child data.³ We suggest that caregivers' mental health is linked to the wellbeing of younger generations under their care, a

likely result of the interdependence between family members and shared experiences of adversity.

The greater burden of mental health problems in Kabul was an unexpected finding of this survey, given that violent conflict is also etched in the social and political past of Bamyan and Mazar-e-Sharif communities. Relative to the two other areas, Kabul children showed higher rates of probable psychiatric disorder and elevated depression symptomology, but no differences in symptoms akin to post-traumatic stress. Interestingly, residence in Kabul was also a risk factor for adult caregivers (data not shown). We relate area-specific findings to the multiplicity of ongoing social and economic stressors in the capital,^{43,44} where overcrowding, high living costs, widening inequalities, pressure on resources and day-to-day stressors may compound other adversity directly related to war.^{45,46} This explanation, while plausible, needs investigation.

As highlighted in one review of psychiatric epidemiology: “factors other than war-related violence account for much of the psychological distress among people exposed to armed conflict” – yet “suffering related to poverty, displacement, poor health, spouse abuse, and social isolation simply does not draw the same level of international interest and concern as war-related trauma”.³⁵ Two large-scale surveys of adults in Afghanistan^{13,14} have linked a high prevalence of mental health problems with gender and exposure to traumatic events; yet, in both surveys, the most common trauma was ‘lack of food/water’ and ‘ill-health without medical care.’ In a handful of other studies, adult mental health for Afghans was associated with day-to-day social stressors,^{43,44} poverty,⁴² and socioeconomic inequalities in access to housing, social and health care.⁴⁷ In our study, material wealth and education predicted mental health outcomes for adult caregivers (data not shown), but not for the children. The one qualitative study focusing on children¹⁶ concluded that psychosocial wellbeing was largely influenced by daily stressors such as environmental threats (e.g., road conditions and traffic accidents). Daily stressors are not to be conflated with traumatic experiences. Yet in the aftermath of war, the notion of ‘trauma’ overlaps with that of ‘social suffering,’ drawing significance from consequences in both medical and social domains.⁴⁸

This cautions against simplistic characterisations of trauma. In Afghanistan, there are both spectacular and mundane forms of violence, ranging from armed insurgency to family conflict: both ‘explosive’ and ‘everyday’ violence, generating sudden pain and ongoing suffering. Our data suggest that, in Afghan children’s lives, ‘everyday’ violence matters just as much as militarized violence in the recollection of traumatic experiences. As their *most* traumatic lifetime experience, respondents identified a range of trauma events linked to

physical and social stressors with significant repercussions on family dynamics, safety and health (Figure 4). Some children identified severe domestic beatings, a severe accident, or a frightening medical treatment as trauma that was more salient than having witnessed first-hand the deaths of parents and grandparents killed in rocket attacks. Conversely, others identified as their most severe trauma the death of a relative killed in the distant past, rather than recurrent distressing experiences of severe domestic beatings. The selective prioritisation of a particular event does not mean that it is *per se* the root cause of mental distress.⁷ However, it does suggest that children assign significance to war-related, community, and family-level traumatic events on the basis of their current life circumstances and needs.⁴⁹

Evidence of psychological suffering must be balanced, however, against evidence of fortitude and coping with adversity. Our survey data fall just within the expected range [CIs] for emotional and behavioural disorders in children, namely an “overall prevalence of 10-15% (...) in children in the general population, which can increase up to 20% in regions of socioeconomic adversity.”⁵⁰ Some 22.2% [19.6,24.7] of students met multi-informant SDQ criteria for probable psychiatric rating, twice the rate (9.6%) found in British national school-based surveys⁴⁰ with the same methodology. Students, as well as caregivers and teachers, reported many symptoms of mental health difficulties, but also rated their social functioning positively (across domains of home, classroom, social, and leisure activities). By age 11-16, Afghans live in a society marked by ongoing, often multiple exposure to adverse and violent events, affecting everyday personal and social experiences. In this study, 63.5% [60.5,66.5] of child respondents reported exposure to traumatic events; 23.9% [21.3,26.6] exhibited substantial psychological distress in the wake of their most frightening lifetime event. As our data reveal, experiencing 5+ traumatic events has striking consequences for mental health, but there is some measure of resilience in negotiating the impact of 1-2 traumatic experiences (Table 2). Other literature emphasises that war-affected adolescents can present both high symptoms of psychopathology and competent social functioning,^{7,51} and that focusing on symptoms, without examining social impact, leads to “implausibly high” rates of mental health disorder.⁵²

Limitations

Three limitations of the study are explicitly noted: sampling bias, respondent bias and instrument diagnostic validity. A sampling bias was introduced by purposively choosing three geographical areas (not representative of the country overall) and failing to include children whose families could not, or chose not, to send them to school. Our survey captured

a random sample of school-children, yielding the first dataset on a growing proportion of Afghan boys and girls attending state-sponsored schools. Because non-school attending children may be at greater risk of mental health disorder,²³ the sampling bias is likely to underestimate relationships observed in our data.

A known limitation of psychiatric research is that respondents have different competence and sensitivity when reporting mental health difficulties.^{23,24} Strict cultural prescriptions for gender segregation and assignment of responsibility for adolescent children influenced which caregiver came for interview (72% were fathers or male guardians in the case of boys, 73% were mothers or female guardians in the case of girls). It is possible that female caregivers, who suffered poorer mental health than males, saw children in more negative light, which would exaggerate gender-based associations between adult and child mental health. However, the study derives methodological strength from providing ratings on mental health difficulties and social impact across three informants (children, caregivers, teachers).⁴⁰ this is hardly ever implemented in low-income or war-affected countries.²³ It is also possible that men and women were differentially inclined to report their distress or aggravate their problems to signal a need for material assistance,⁵³ although we paid careful attention to issues of communication, rapport, time and privacy.

We used instruments shown to be useful and valid for screening purposes in a range of Western/non-Western cultures and low/high income countries, but without clinical revalidation in Afghanistan. Our methodological strengths lie in the use of multiple instruments, with attention paid to cross-cultural reliability and validity.^{20,54} The multi-informant SDQ ratings go beyond a narrow focus on symptomology: they systematically include respondents' own evaluations of the functional and social significance of a child's mental health difficulties, in terms of causing distress and impairment in daily life. We are mindful of debates regarding the relevance of absolute thresholds for community-wide screening across cultures³³ and the important distinction between general psychological distress (suffering) and severe mental health disorder (pathology).^{18,55} Rather than seeking to establish prevalence rates for specific psychiatric disorders, we focus attention on risk factors for mental health problems and psychological distress, and the robustness of findings across multiple instruments.

Implications

Our study demonstrates the feasibility and potential value of working in schools to identify the nature and risk correlates of child mental health, using lay interviewers and brief instruments.³⁶ Our research was well-received; teachers remarked that they had not

previously reflected on the impact mental health difficulties could have for scholastic performance and students commented that they had never previously been asked about their feelings related to school and/or home experiences. In this socially conservative context, many female caregivers had never been given the opportunity to visit the school or meet their child's teacher. Our study raised awareness of the importance of child mental health issues within school settings and suggests that school-based interventions would be well-received.

Community-level interventions, in the form of school-based mental health programmes, are nascent, localised initiatives in Afghanistan,⁴³ but already advocated²⁶ and successful⁵⁶ in Pakistan and for children affected by political violence in the West Bank/Gaza⁵⁷ and Indonesia.⁵⁸ Policy support for public-health interventions¹ to alleviate trauma, mental health disorders and psychological distress is currently a priority¹² for the Afghan government. This is due to the acute shortage of qualified mental health care practitioners, the current level of provision of basic health and social services,⁵⁹ and the challenges of programming with youth.⁶⁰ Emerging consensus advocates several layers of support for mental health programmes in emergency settings: those targeting the family and community, as well as more specialist care for those in clinical need.⁵

We highlight two robust predictors of poor mental health outcomes for children: exposure to multiple trauma and caregiver mental health. The former predictor is consistent with findings in the existing literature. We draw attention, however, to the significance of everyday violence and trauma which is not narrowly focused on war. This serves to broaden understanding of trauma and place it in the context of 'everyday' forms of suffering, violence and adversity. The consistent, albeit modest, parent-child associations for mental health outcomes point to psychosocial suffering being embedded in household dynamics and shared adverse experiences. The simple but powerful conclusion of a meta-review of cross-cultural psychiatric research rings true for Afghan society: "the key to giving young people a good start in life is to help their parents."¹ Our findings lend support to interventions which address mental health issues at family and community-level, framing policies to strengthen whole family units and enhance their access to basic social, health and educational services.^{5,12}

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liaised with all government and school representatives, managed the local field team and systematically checked all data. XXX handled survey datasets and analyzed verbatim interviews. XXX took responsibility for data analyses. **Acknowledgements:** The study was implemented through partnerships between Durham and Peshawar universities and an independent agency based in Kabul, ALTAI Consulting. Professor R. Goodman reviewed back-translations to finalise versions of the Strength and Difficulties Questionnaire (now copyrighted in Dari and Pashto on www.sdqinfo.com). Dr Atle Dyregrov made available the Dari/Pashto versions of CRIES and DSRS on the Children and War Foundation website (www.childrenandwar.org).

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